III. CLAIM AMENDMENTS

1. - 39. (Cancelled)

40. (New) A method for reducing visual artefacts in a digital image comprising a plurality of image blocks in which image blocks are encoded to form encoded image blocks and said encoded image blocks are subsequently decoded to form decoded image blocks, each decoded image block comprising a number of reconstructed pixels, each reconstructed pixel having an associated pixel value and filtering is performed to reduce visual artefacts due to a boundary between a current decoded image block and a previously decoded image block adjacent to the current decoded block such that the pixel value of at least one reconstructed pixel in at least one of said current decoded image block and said previously decoded image block is modified by filtering to produce a modified pixel value, wherein said modified pixel value is made available for use in filtering and/or prediction of a pixel value in an image block to be subsequently encoded or decoded.

41. (New) A method according to claim 40, characterized in that said encoding of an image block to form an encoded image block is performed using motion compensated prediction of at least one pixel value with respect to a reference image using said modified pixel value.

42. (New) A method according claim 41, characterized in that said decoding of an encoded image block to form a decoded image block is performed using motion compensated prediction of at least one

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pixel value with respect to a reference image using said modified pixel value.

43. (New) A method according to claim 40, characterized in that said encoding of an image block to form an encoded image block is performed using intra prediction of at least one pixel value with reference to a previously encoded and subsequently decoded image block of the digital image using said modified pixel value.

44. (New) A method according to claim 4, characterized in that said decoding of an encoded image block to form a decoded image block is performed using intra prediction of at least one pixel value with reference to a previously encoded and subsequently decoded image block of the digital image using said modified pixel value.

45. (New) A method according to claim 40, characterized in that said modification of the value of at least one reconstructed pixel in at least one of said current decoded image block and said previously decoded image block by filtering is performed immediately after the current decoded image block is formed and a boundary exists between said current decoded image block and said previously decoded image block.

46. (New) A method according to claim 40, characterized in that the filtering is performed before all blocks of the digital image are decoded.

47. (New) A method according to claim 40, characterized in that it is determined whether more than one boundary exists between said current decoded image block and previously decoded image blocks, wherein if more than one boundary exists, then filtering

is performed on said more than one boundary available for filtering to reduce visual artefacts due to said more than one boundary.

48. (New) A method according to claim 47, characterized in that filtering to reduce visual artefacts due to said more than one boundary is performed sequentially on said more than one boundary in a certain order.

49. (New) A method according to claim 48, characterized in that the order of filtering boundaries is selected such that a boundary to the left of the current decoded image block is filtered before a boundary to the top of the current decoded image block.

50. (New) A method according to claim 40, characterized in that filtering to reduce visual artefacts due to a boundary between a current decoded image block and a previously decoded image block adjacent to the current decoded block is performed during encoding of said image blocks in an image encoder to form encoded image blocks and further during decoding of said encoded image blocks in a corresponding image decoder, and the order of filtering boundaries used during decoding is the same as that during encoding.

51. (New) A method according to claim 40, characterized in that said modified pixel value is used when filtering is performed to reduce visual artefacts due to at least one other boundary between decoded image blocks.

52. (New) A method for reducing visual artefacts in a digital image comprising a plurality of image blocks, which are grouped

into macroblocks, in which image blocks are encoded to form encoded image blocks and said encoded image blocks are subsequently decoded to form decoded image blocks, each decoded image block comprising a number of reconstructed pixels, each reconstructed pixel having an associated pixel value and filtering is performed to reduce visual artefacts due to a boundary between a current decoded image block and a previously decoded image block adjacent to the current decoded block such that the pixel value of at least one reconstructed pixel in at least one of said current decoded image block and said previously decoded image block is modified by filtering to produce a modified pixel value, wherein the digital image is filtered macroblock by macroblock according to a certain scanning order, and that said modified pixel value is made available for use in filtering and/or prediction of a pixel value in an image block to be subsequently encoded or decoded.

53. (New) A method according to claim 52, characterized in that filtering to reduce visual artefacts due to a boundary between a current decoded image block and a previously decoded image block adjacent to the current decoded block in a macroblock earlier in the scanning order is performed before filtering to reduce visual artefacts due to a boundary between a current decoded image block and a previously decoded image block adjacent to the current decoded block in a macroblock later in the scanning order.

54. (New) A method according to claim 52, characterized in that filtering to reduce visual artefacts due to a boundary between a current decoded image block and a previously decoded image block adjacent to the current decoded block is performed for all boundaries within a macroblock before filtering to reduce visual

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artefacts is performed within the next macroblock in the scanning order.

55. (New) A method according to claim 40, characterized in that the digital image comprises at least one segment of image blocks and that only boundaries between adjacent decoded image blocks that belong to the same segment are filtered.

56. (New) A method according to claim 40, characterized in that the digital image comprises a luminance component and at least one chrominance component, and that filtering is performed to reduce visual artefacts due to a boundary between a current decoded image block and a previously decoded image block adjacent to the current decoded image block in at least one of said luminance component and said at least one chrominance component.

57. (New) A method according to claim 40, characterized in that the digital image comprises at least a first colour component and a second colour component, and that filtering is performed to reduce visual artefacts due to a boundary between a current decoded image block and a previously decoded image block adjacent to the current decoded image block in at least one of the first colour component and the second colour component.

58. (New) An encoder for encoding a digital image comprising a plurality of image blocks, the encoder comprising means for encoding image blocks to form encoded image blocks and means for subsequently decoding said encoded image blocks to form decoded image blocks, each decoded image block comprising a number of reconstructed pixels, each reconstructed pixel having an associated pixel value, the encoder comprising a filter for

reducing visual artefacts due to a boundary between a current decoded image block and a previously decoded image block adjacent to the current decoded block, said filter being arranged to modify the pixel value of at least one reconstructed pixel in at least one of said current decoded image block and said previously decoded image block by filtering to produce a modified pixel value, wherein the encoder is arranged to make said modified pixel value available for use in filtering and/or prediction of a pixel value in an image block to be subsequently encoded.

59. (New) An encoder according to claim 58, characterized in that said means for encoding an image block to form a encoded image block comprises means for performing motion compensated prediction of at least one pixel value with respect to a reference image using said modified pixel value.

60. (New) An encoder according to claim 58, characterized in that said means for encoding an image block to form an encoded image block comprises means for performing intra prediction of at least one pixel value with reference to a previously encoded and subsequently decoded image block of the digital image using said modified pixel value.

61. (New) An encoder according to claim 58, characterized in that said filter is arranged to modify the value of at least one reconstructed pixel in at least one of said current decoded image block and said previously decoded image block immediately after the current decoded image block is formed and a boundary exists between said current decoded image block and said previously decoded image block.

62. (New) An encoder according to claim 58, characterized in that said filter is arranged to reduce visual artefacts due to more than one boundary between said current decoded image block and at least one other previously decoded image block.

63. (New) An encoder according to claim 62, characterized in that the filter is arranged to reduce visual artefacts due to said more than one boundary by filtering the boundaries sequentially in a certain boundary scanning order.

64. (New) An encoder according to claim 58, characterized in that the filter is arranged to use said modified pixel value when reducing visual artefacts due to at least one other boundary between decoded image blocks.

65. (New) An encoder for encoding a digital image comprising a plurality of image blocks which are grouped into macroblocks, each macroblock comprising a certain number of image blocks, the encoder comprising means for encoding image blocks to form encoded image blocks and means for subsequently decoding said encoded image blocks to form decoded image blocks, each decoded image block comprising a number of reconstructed pixels, each reconstructed pixel having an associated pixel value, the encoder comprising a filter for reducing visual artefacts due to a boundary between a current decoded image block and a previously decoded image block adjacent to the current decoded block, said filter being arranged to modify the pixel value of at least one reconstructed pixel in at least one of said current decoded image block and said previously decoded image block by filtering to produce a modified pixel value, wherein the encoder is arranged to encode and subsequently decode the image macroblock by macroblock according to a certain macroblock scanning order, and

that the encoder is arranged to make said modified pixel value available for use in filtering and/or prediction of a pixel value in an image block to be subsequently encoded.

66. (New) An encoder according to claim 65, characterized in that the filter is arranged to reduce visual artefacts due to a boundary between a current decoded image block and a previously decoded image block adjacent to the current decoded block in a macroblock earlier in the scanning order before reducing visual artefacts due to a boundary between a current decoded image block and a previously decoded image block adjacent to the current decoded block in a macroblock later in the scanning order.

67. (New) An encoder according to claim 65, characterized in that the filter is arranged to reduce visual artefacts due to boundaries between decoded image blocks within a current macroblock in the macroblock scanning order before reducing visual artefacts due to boundaries within the next macroblock in the scanning order.

68. (New) An encoder according to claim 65, characterized in that it is further arranged to encode and subsequently decode the image blocks of a macroblock in a certain block scanning order.

69. (New) An encoder according to claim 65, characterized in that it is further arranged to encode and subsequently decode all the image blocks of a given macroblock in the macroblock scanning order before encoding and subsequently decoding the image blocks of the next macroblock in the macroblock scanning order.

70. (New) An encoder according to claim 65, characterized in that the filter is arranged to reduce visual artefacts due to

boundaries between decoded image blocks of a macroblock by filtering, according to said block scanning order substantially immediately after each encoded image block is decoded to form a current decoded image block and a boundary exists between the current decoded image block and a previously decoded image block adjacent to the current decoded block.

71. (New) An encoder according to claim 65, characterized in that the filter is arranged to reduce visual artefacts due to more than one boundary between said current decoded image block and at least one other previously decoded image block.

72. (New) An encoder according to claim 71, characterized in that the filter is further arranged to reduce visual artefacts due to said more than one boundary by filtering the boundaries sequentially in a certain boundary scanning order.

73. (New) An encoder according to claim 58, characterized in that the digital image comprises at least one segment of image blocks, and that the filter is arranged to reduce visual artefacts due to boundaries between adjacent decoded image blocks that belong to the same segment.

74. (New) An encoder according to claim 58, characterized in that the digital image comprises a luminance component and at least one chrominance component, and that the filter is arranged to reduce visual artefacts due to a boundary between a current decoded image block and a previously decoded image block adjacent to the current decoded image block in at least one of said luminance component and said at least one chrominance component.

75. (New) An encoder according to claim 58, characterized in that the digital image comprises at least a first colour component and a second colour component, and that the filter is arranged to reduce visual artefacts due to a boundary between a current decoded image block and a previously decoded image block adjacent to the current decoded image block in at least one of the first colour component and the second colour component.

76. (New) A decoder for decoding an encoded digital image, said encoded digital image comprising a plurality of encoded image blocks and having been formed by encoding a digital image comprising a plurality of image blocks, the decoder comprising means for decoding said encoded image blocks to form decoded image blocks, each decoded image block comprising a number of reconstructed pixels, each reconstructed pixel having an associated pixel value, the decoder comprising a filter for reducing visual artefacts due to a boundary between a current decoded image block and a previously decoded image block adjacent to the current decoded block, said filter being arranged to modify the pixel value of at least one reconstructed pixel in at least one of said current decoded image block and said previously decoded image block by filtering to produce a modified pixel value, wherein the decoder is arranged to make said modified pixel value available for use in filtering and/or prediction of a pixel value in an image block to be subsequently decoded.

77. (New) A decoder according to claim 76, characterized in that said means for decoding an encoded image block to form a decoded image block comprises means for performing motion compensated prediction of at least one pixel value with respect to a reference image using said modified pixel value.

78. (New) A decoder according to claim 76, characterized in that said means for decoding an encoded image block to form a decoded image block comprises means for performing intra prediction of at least one pixel value with reference to a previously encoded and decoded image block of the digital image using said modified pixel value.

79. (New) A decoder according to claim 76, characterized in that said filter is arranged to modify the value of at least one reconstructed pixel in at least one of said current decoded image block and said previously decoded image block immediately after the current decoded image block is formed and a boundary exists between said current decoded image block and said previously decoded image block.

80. (New) A decoder according to claim 76, characterized in that said filter is arranged to reduce visual artefacts due to more than one boundary between said current decoded image block and at least one other previously decoded image block.

81. (New) A decoder according to claim 80, characterized in that the filter is arranged to reduce visual artefacts due to said more than one boundary by filtering the boundaries sequentially in a certain boundary scanning order.

82. (New) A decoder according to claim 76, characterized in that the filter is arranged to use said modified pixel value when reducing visual artefacts due to at least one other boundary between decoded image blocks.

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83. (New) A decoder for decoding an encoded digital image, said encoded digital image comprising a plurality of encoded image blocks and having been formed by encoding a digital image comprising a plurality of image blocks, which are grouped into macroblocks, each macroblock comprising a certain number of image blocks, the decoder comprising means for decoding said encoded image blocks to form decoded image blocks, each decoded image block comprising a number of reconstructed pixels, each reconstructed pixel having an associated pixel value, the decoder comprising a filter for reducing visual artefacts due to a boundary between a current decoded image block and a previously decoded image block adjacent to the current decoded block, said filter being arranged to modify the pixel value of at least one reconstructed pixel in at least one of said current decoded image block and said previously decoded image block by filtering to produce a modified pixel value, wherein the decoder is arranged to decode the image macroblock by macroblock according to a certain macroblock scanning order, and that the decoder is arranged to make said modified pixel value available for use in filtering and/or prediction of a pixel value in an image block to be subsequently decoded.

84. (New) A decoder according to claim 83, characterized in that the filter is arranged to reduce visual artefacts due to a boundary between a current decoded image block and a previously decoded image block adjacent to the current decoded block in a macroblock earlier in the scanning order before reducing visual artefacts due to a boundary between a current decoded image block and a previously decoded image block adjacent to the current decoded block in a macroblock later in the scanning order.

85. A decoder according to claim 83, characterized in that the filter is arranged to reduce visual artefacts due to boundaries between decoded image blocks within a current macroblock in the macroblock scanning order before reducing visual artefacts due to boundaries within the next macroblock in the scanning order.

86. (New) A decoder according to claim 83, wherein the image blocks of a macroblock are encoded by an encoder to form encoded image blocks according to a certain block scanning order, characterized in that the decoder is further arranged to decode the encoded image blocks of a macroblock according to said certain block scanning order.

87. (New) A decoder according to claim 83, characterized in that it is further arranged to decode all the encoded image blocks of a given macroblock in the macroblock scanning order before decoding the encoded image blocks of the next macroblock in the macroblock scanning order.

88. (New) A decoder according to claim 83, characterized in that the filter is arranged to reduce visual artefacts due to boundaries between decoded image blocks of a macroblock by filtering, according to said block scanning order substantially immediately after each encoded image block is decoded to form a current decoded image block and a boundary exists between the current decoded image block and a previously decoded image block adjacent to the current decoded block.

89. (New) A decoder according to claim 88, characterized in that the filter is arranged to reduce visual artefacts due to more than one boundary between said current decoded image block and at least one other previously decoded image block.

90. (New) A decoder according to claim 89, characterized in that the filter is further arranged to reduce visual artefacts due to said more than one boundary by filtering the boundaries sequentially in a certain boundary scanning order.

91. (New) A decoder according to claim 76, characterized in that the digital image comprises at least one segment of image blocks, and that the filter is arranged to reduce visual artefacts due to boundaries between adjacent decoded image blocks that belong to the same segment.

92. (New) A decoder according to claim 76, characterized in that the digital image comprises a luminance component and at least one chrominance component, and that the filter is arranged to reduce visual artefacts due to a boundary between a current decoded image block and a previously decoded image block adjacent to the current decoded image block in at least one of said luminance component and said at least one chrominance component.

93. (New) A decoder according to claim 76, characterized in that the digital image comprises at least a first colour component and a second colour component, and that the filter is arranged to reduce visual artefacts due to a boundary between a current decoded image block and a previously decoded image block adjacent to the current decoded image block in at least one of the first colour component and the second colour component.

94. (New) A terminal comprising at least one of an encoder according to claim 58, an encoder according to claim 65, a

decoder according to claim 76, and a decoder according to claim 83.

95. (New) A terminal according to claim 94, characterized in that it is a mobile terminal.

96. (New) A terminal according to claim 95, characterized in that it is a wireless terminal of a mobile communications system.

97. (New) A storage medium comprising a computer program for operating a computer as an encoder for encoding a digital image comprising a plurality of image blocks, which are grouped into macroblocks, each macroblock comprising a certain number of image blocks, the computer program comprising:
- program code for encoding image blocks to form encoded image blocks;
- program code for subsequently decoding said encoded image blocks to form decoded image blocks, each decoded image block comprising a number of reconstructed pixels, each reconstructed pixel having an associated pixel value;
- program code for implementing a filter to reduce visual artefacts due to a boundary between a current decoded image block and a previously decoded image block adjacent to the current decoded block, such that the pixel value of at least one reconstructed pixel in at least one of said current decoded image block and said previously decoded image block is modified by filtering to produce a modified pixel value,
wherein the computer program comprises program code for decoding the image macroblock by macroblock according to a certain macroblock scanning order, and that the computer program further comprises program code for making said modified pixel value

available for use in filtering and/or prediction of a pixel value in an image block to be subsequently encoded.

98. (New) A storage medium comprising a computer program for operating a computer as a decoder for decoding an encoded digital image, said encoded digital image comprising a plurality of encoded image blocks and having been formed by encoding a digital image comprising a plurality of image blocks, which are grouped into macroblocks, each macroblock comprising a certain number of image blocks, the computer program comprising:

- program code for decoding said encoded image blocks to form decoded image blocks, each decoded image block comprising a number of reconstructed pixels, each reconstructed pixel having an associated pixel value;

- program code for implementing a filter to reduce visual artefacts due to a boundary between a current decoded image block and a previously decoded image block adjacent to the current decoded block such that the pixel value of at least one reconstructed pixel in at least one of said current decoded image block and said previously decoded image block is modified by filtering to produce a modified pixel value,

wherein the computer program comprises program code for decoding the image macroblock by macroblock according to a certain macroblock scanning order, and that the computer program further comprises program code for making said modified pixel value available for use in filtering and/or prediction of a pixel value in an image block to be subsequently decoded.

99. (New) A method according to claim 52, characterized in that the digital image comprises at least one segment of image blocks and that only boundaries between adjacent decoded image blocks that belong to the same segment are filtered.

100. (New) A method according to claim 52, characterized in that the digital image comprises a luminance component and at least one chrominance component, and that filtering is performed to reduce visual artefacts due to a boundary between a current decoded image block and a previously decoded image block adjacent to the current decoded image block in at least one of said luminance component and said at least one chrominance component.

101. (New) A method according to claim 52, characterized in that the digital image comprises at least a first colour component and a second colour component, and that filtering is performed to reduce visual artefacts due to a boundary between a current decoded image block and a previously decoded image block adjacent to the current decoded image block in at least one of the first colour component and the second colour component.

102. (New) An encoder according to claim 65, characterized in that the digital image comprises at least one segment of image blocks, and that the filter is arranged to reduce visual artefacts due to boundaries between adjacent decoded image blocks that belong to the same segment.

103. (New) An encoder according to claim 65, characterized in that the digital image comprises a luminance component and at least one chrominance component, and that the filter is arranged to reduce visual artefacts due to a boundary between a current decoded image block and a previously decoded image block adjacent to the current decoded image block in at least one of said luminance component and said at least one chrominance component.

104. (New) An encoder according to claim 65, characterized in that the digital image comprises at least a first colour component and a second colour component, and that the filter is arranged to reduce visual artefacts due to a boundary between a current decoded image block and a previously decoded image block adjacent to the current decoded image block in at least one of the first colour component and the second colour component.

105. (New) A decoder according to claim 83, characterized in that the digital image comprises at least one segment of image blocks, and that the filter is arranged to reduce visual artefacts due to boundaries between adjacent decoded image blocks that belong to the same segment.

106. (New) A decoder according to claim 83, characterized in that the digital image comprises a luminance component and at least one chrominance component, and that the filter is arranged to reduce visual artefacts due to a boundary between a current decoded image block and a previously decoded image block adjacent to the current decoded image block in at least one of said luminance component and said at least one chrominance component.

107. (New) A decoder according to claim 83, characterized in that the digital image comprises at least a first colour component and a second colour component, and that the filter is arranged to reduce visual artefacts due to a boundary between a current decoded image block and a previously decoded image block adjacent to the current decoded image block in at least one of the first colour component and the second colour component.